

11. (Once Amended) A method of propagating changes to a data container, comprising the steps of:

maintaining a first copy of the data container at a first site;

maintaining a second copy of the data container at a second site;

transmitting changes to the first copy of the data container from the first site to the second site; and

updating the second copy of the data container at the second site based on the transmitted changes;

wherein the first copy of the data container and the second copy of the data container have at least one non-overlapping data field.

12. (Canceled)

13. (Canceled)

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### REMARKS

By this amendment, claims 1-11 and 14-15 are pending, in which claim 1 is amended to correct a grammatical issue, claims 14-15 are newly presented, and claims 12-13 are cancelled without prejudice or disclaimer. No new matter is added.

The Office Action mailed February 27, 2003 rejected claims 1-11 as obvious under 35 U.S.C. § 103 based on *Zollinger et al.* (US 5,999,947) and restricted and constructively withdrew claims 12-13 under 35 U.S.C. § 121 as being directed to a different invention.

To expedite prosecution, restricted and constructively withdrawn claims 12-13 are canceled without prejudice or disclaimer to a continuation that may be filed.

The rejection of the claims under §103 is respectfully traversed because *Zollinger et al.* does not teach or otherwise suggest the limitations of claims 1-10. For example, independent claims 1 recites:

maintaining a first copy of the table at a first site;  
maintaining a second copy of the table at a second site; and  
transmitting changes to the first copy of the table from the first site to the second site;  
updating the second copy of the table at the second site based on the transmitted changes;  
wherein the first copy of the table and the second copy of the table have **at least one non-overlapping** relational database column.

Independent claim 11 recites: “wherein the first copy of the data container and the second copy of the data container have **at least one non-overlapping** data field.” The Office Action correctly states, “However, *Zollinger* does not explicitly disclose ‘non-overlapping column.’” In fact, *Zollinger et al.* teaches against transmitting changes and updating the second copy of the table, wherein “the first copy of the table and the second copy of the table have **at least one non-overlapping** relational database column” (claim 1) or “the first copy of the data container and the second copy of the data container have **at least one non-overlapping** data field” (claim 11).

*Zollinger et al.* is directed to distributing database differences corresponding to database change event made to database table located on a server computer (Title). With respect to step 78 of FIG. 5 and col. 10:16-27, *Zollinger et al.* enforces a distinction between a “minor revision” and a “major revision,” in which database changes events are handled very differently. Specifically, minor revisions are handled by generating differences between the current table and the reference table (FIG. 5, step 82, col. 10:35-67). Major revisions, however, are handled, not by transmitting “changes to a first copy of the table,” but in the following manner:

Next, the current table 20 is copied to the reference table 28 at step 90 without any differencing being made. Finally, all previous updates will no longer be necessary since every update to this newest version level will require that the table be copied to the client in its entirety. Therefore, at step 92, *all previous*

*updates will be erased* in order to release system resources. The effect of a major revision when receiving a request for an update is that the reference table **28** will be directly copied to the client regardless of the current version of the table on the client. (col. 11:40-50, emphasis added)

*Zollinger et al.* discloses that adding an entire column is considered a major structural change to a table (col. 11:14-17). Accordingly, when a column is added to a server table in *Zollinger et al.*, the table is copied down to the client. This results in the server and client tables having identical columns, i.e. teaching against the limitation of “at least one non-overlapping relational database column” (claim 1) or “non-overlapping data field” (claim 11) even after the update is completed (see new claims 14-15). In fact, previous updates (which might have a different column shape in *Zollinger et al.*) are **erased**, and updates are allowed to resume only after the client table has a copy of the server table.

With respect to independent claim 9, claim 9 recites:

- (a) defining a first flavor for a first site, said first flavor describing the table as having both the first column and the second column;
- (b) adding the second column to the table at the first site, so that the table contains both the first column and the second column;
- (c) defining a second flavor for a second site, said second flavor describing the table as having the second column but not the first column;
- (d) dropping the first column and adding the second column to the table at the second site;**
- (e) defining the second flavor for the first site and dropping the first column from the table at the first site;
- (f) maintaining replication activities while performing steps (a), (b), (c), (d), and (e).**

The Office Action correctly states that “Zollinger does not explicitly disclose ‘dropping the first column’” (p. 9). In fact, *Zollinger et al.* teaches against this dropping a column or other major structure change while “maintaining replication activities” as recited in claim 11, because previous changes are erased (FIG. 5, step **92**, col. 11:44-45) and the replication restarts with the new table.

Dependent claims 2-9, 10, and 14-15 are allowable for at least the same reasons as their independent claim and are patentable on their own merits.

Therefore, the present application, as amended, overcomes the objections and rejections of record and is in condition for allowance. Favorable consideration is respectfully requested. If any unresolved issues remain, it is respectfully requested that the Examiner telephone the undersigned attorney at 703-425-8516 so that such issues may be resolved as expeditiously as possible.

Respectfully Submitted,

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Date



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**APPENDIX**

1. (Twice Amended) A method of propagating changes to a table, comprising the steps of:  
maintaining a first copy of the table at a first site;  
maintaining a second copy of the table at a second site; [and]  
transmitting changes to the first copy of the table from the first site to the second site; and  
updating the second copy of the table at the second site based on the transmitted changes;  
wherein the first copy of the table and the second copy of the table have at least one non-overlapping relational database column.

11. (Once Amended) A method of propagating changes to a data container, comprising the steps of:

maintaining a first copy of the data container at a first site;  
maintaining a second copy of the data container at a second site; [and]  
transmitting changes to the first copy of the data container from the first site to the second site; and  
updating the second copy of the data container at the second site based on the transmitted changes;  
wherein the first copy of the data container and the second copy of the data container have at least one non-overlapping data field.

12. (Canceled) [A method of propagating changes to database objects, comprising the steps of:  
defining a top flavor maintained at a master site and that describes a superset of the database objects;

defining at least one other flavor maintained at respective client sites and that describes a subset of the database objects defined by the top flavor; and propagating changes to the database objects based on the top flavor and the at least one other flavor.]

13. (Canceled) [The method of claim 12, wherein the database objects include one of tables, rows, columns, data containers, records, fields, key columns, and key fields.]

14. (New) The method of claim 1, wherein the first copy of the table and the second copy of the table have said at least one non-overlapping relational database column after said updating.

15. (New) The method of claim 11, wherein the first copy of the data container and the second copy of the data container have said at least one non-overlapping data field after said updating.